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China Report

AGRICULTURE

No. 184



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CHINA REPORT

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I. GENERAL INFORMATION

READJUSTMENT OF AGRICULTURAL STRUCTURE PROPOSED

Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 11, 5 Nov 81
pp 13-14

[Article by Wu Jun [0702 1498], Agricultural Economics Institute, Chinese Academy of Social Sciences: "Some Views on Readjustment of China's Agricultural Structure"]

[Text] By agricultural structure is meant the quality mix and the proportional quantity relationships among farming, forestry, livestock raising, sideline occupations, and the fishing industry, and among the individual links of production, distribution, exchange, and consumption. In a fundamental sense, the building of any kind of agricultural structure is determined by the level of productivity; however, an equitable agricultural structure also has a role in promotion of the development of productivity.

Overall Appraisal

China's agriculture has for long been in a natural economic state of self-sufficiency and semi self-sufficiency in which the commodity economy is very much undeveloped. Following Liberation, rural villages collectivized, and improvement in the conditions of production caused fairly rapid expansion of agricultural production, particularly of grain production, substantially assuring the food needs of a population of almost 1 billion. This was a wonderful accomplishment. However, because of the effects of erroneous leftist ideology, a very great one-sided and subjective bent existed in the guidance of agricultural production. We concentrated most of our attention on the limited cultivated land and grain output to the neglect and harm of economic diversification and household sideline industries, and to the neglect of all-around rural development. This led to a proportional imbalance within agriculture, destruction of natural resources, a loss of balance in the agricultural ecology, slow development of production, and not very rapid improvement in the livelihood of the peasants. After the Third Plenary Session of the 11th Party Central Committee, and particularly during the past 2 years, simultaneous with the implementation of the party's various rural policies and the adaptation of general methods to local situations for implementation of various forms of a system of responsibility for production, preliminary readjustments were made in the inequitable structure of agriculture. These produced noticeable results as follows: One was that in farming in accordance with local conditions, and through a preliminary readjustment of the irrational crop pattern of agriculture, the situation of sole attention to grain output began to be turned around, with both grain and economic diversification seeing development. A second was that as a result of private plots for commune members, liberalization of country fair

trade, and support for commune member development of household sideline industries, for the past almost 2 years commune member household sideline industries have developed quite rapidly, earnings have increased fairly rapidly, and a change has taken place in the make-up of peasant income. Third was a more rapid pace of readjustment in the suburbs of large cities and in economically developed areas and noticeable results. In some poverty stricken and backward areas, changes have also been fairly great. Fourth was that in addition to the establishment by the state farm and land reclamation system of integrated farming, industrial, and commercial enterprises, rural people's communes have also set up more than 340 pilot project integrated farming, industrial and commercial enterprises. The appearance of this new organizational form in various places has already initially demonstrated its superiority, and has pointed the direction for all-around development of China's rural villages and for reforms to the economic system.

These various changes in China's rural villages during the past 2 years show that the structure of agriculture is now pointed in the direction of development that is beneficial to the ecological balance and to coordination among all industries. However, it is also necessary to realize that overall production levels in rural villages are low, that there is little accumulated wealth, that accumulations are scant, that agriculture is internally proportionally unbalanced, and that damage to the ecological balance has not been fundamentally changed. This is manifested in: A situation of no halt in damage to natural resources. Reckless cutting and denudation of forests, and the destruction of forests to clear land for agriculture is still rather serious. The overgrazing of grasslands, plus no attention to building them up, has created a situation in which desertification and degeneration has not yet been stopped. Following liberalization of commune member feeding of private livestock, pertinent measures and policies have not caught up. In agriculture, there is a plundering form of farming in which much is taken and little given, only taking away with no putting back, causing a decline in soil fertility. In the fishing industry, over-fishing, indiscriminate taking of catches, and destruction of resources is extremely serious.

Agricultural production levels are low; the labor productivity rate is low; the commodity rate is low; and capabilities for expanding reproduction are limited.

No great change has occurred in the composition of rural workforces, and changing agricultural production and the ecological system from a vicious cycle to a benign cycle will require a long period of arduous efforts to achieve.

How to Readjust China's Agricultural Structure

In order to readjust and establish an agricultural structure that accords with China's national characteristics, it is necessary, first of all, to clarify just what are the standards for an equitable agricultural structure. It is generally recognized that an equitable agricultural structure: one, can fully and equitably use natural resources and labor resources; two, can protect and promote ecological balance, farming, forestry, livestock raising, sideline industries, and fisheries thereby developing in coordination and being mutually promoting; three can provide fairly good economic results; and four, can satisfy, during a certain stage, society's needs for agricultural byproducts.

However, opinions differ as to how, on the basis of the aforesaid standards, to build an agricultural structure that accords with China's national characteristics. As to which opinions accord with China's present circumstances, we believe that China

is presently at a fairly low, multi-level standard of productivity, and consequently the structure of agriculture should also be a multi-level, transitional economic structure. Specifically, this means that its structure of production has to fully and equitably make use of natural resources and manpower resources, should implement simultaneous development of farming, forestry, livestock raising, sideline industries and the fishing industry, integrate farming, industry, and commerce, and develop the rural economy in an all-around way. In the structure of economic organization, while assuring the principles of public ownership of the means of production and distribution according to work, diverse economic components and multiple forms of diversification should be permitted to co-exist so as to fully arouse the enthusiasm of the collective and of individuals. In the technological structure, while studying and borrowing advanced experiences from abroad, attention should be given to making the most of the advantages of traditional Chinese agriculture in a policy of equal emphasis on traditional techniques and advanced techniques.

How can the present internal proportional imbalance in the agricultural economy be gradually readjusted in a planned way? I believe:

First, forestry has to be vigorously strengthened. Inasmuch as forestry currently constitutes the weakest link in agricultural production, and inasmuch as forestry has an extremely important role to play in the restoration of the natural ecological balance, and in the promotion of agriculture and the livestock raising industry, from a foundation of fixed ownership rights over mountains and forests with implementation of a system of responsibility for production, and a halt to reckless felling and denudation, measures must be taken to rally national, collective, and individual forces for vigorous planting of trees and afforestation. On the basis of natural conditions, population distribution and land resources in individual areas, different forest re-covering rates should be formulated. In the past the emphasis of afforestation was in mountain regions and on hills. It now appears that planting of trees on the plains is something well worth doing. A survey done in Hebei Province shows that from a forest network around farmland a re-covering rate of 4 percent can be attained, and from the planting of trees in the "four besides," [beside roads, streams, fields, and houses], a re-covering rate of 7 percent can be obtained for a total of 11 percent. While readjusting forestry, it is also necessary to readjust the inequitable afforestation structure, increasing the ratio of shelter forests, economic forests, and firewood forests, particular efforts being made to restore and develop ligneous, food, oil, and economic forests such as tea oil, tung, Chinese chestnut, date, walnut, Chinese tallow, lacquer, oil palm, and coconut. Some ligneous oil could be used to take the place of some vegetable oil, the cultivated land being used to grow grain and other economic crops. Development of firewood forests could solve rural energy needs. These two matters possess major strategic significance in development of agriculture, and all jurisdictions should give serious attention to them.

Second, conscientious farming of existing cultivated land. In a situation in which total grain output increases year by year and the average amount of grain per person is no less than present levels, the principle of adapting general methods to local situations should be followed for year by year readjustment of the use of some grain-fields for development of oil, sugar, hemp, tobacco, and vegetables. This should be done either for the sake of self-sufficiency or to expand exports. It is necessary in terms of the overall development of agriculture, and it is possible as well. For example, in both north and south China, large areas of sandy soil suitable for the growing of peanuts are now used for the growing of grain. Per unit yields are very

low. Why not convert to the growing of peanuts? In international markets, a jin of peanuts can be exchanged for between 7 and 8 jin of grain. Export of peanuts in an exchange of oil for grain would be extraordinarily profitable for us. The emphasis of cotton production should be placed in the north (including Xinjiang Province) and in coastal Jiangsu, cotton fields in Jiangxi, Hunan and parts of Sichuan that produce low yields and where economic benefits are poor being cut back so that the distribution of cotton fields is appropriately concentrated for intensive farming and gradual movement toward rationality. The potential for increased cotton yields is still fairly great. Grain output potential, particularly in medium yield and low yield areas, is very great, primarily through increases in yields per unit of area. In the growth of grain production, it is also necessary to readjust irrational farming patterns, to readjust the structure of grain varieties, and to expand the growing of bean crops and of minor miscellaneous grains needed in the lives of the people.

Third, readjustment of the livestock industry requires that distinctions be made about prevailing circumstances in different areas, focusing on the important points, and solution to major contradictions. Of greatest importance in pastoral regions is solution to the proportional imbalance between grass and livestock, the desertification and degeneration of the grasslands. Through intensification of the building of grasslands, establishment of man-made ranges, rotational closing off of areas to pasturage, and readjustment of the composition of livestock herds, the livestock industry can be put on a solid foundation avoiding great ups and down. Semi-farming semi-pastoral areas should put into effect a system of rotating grass and other crops. The focal point of the livestock industry in farming areas is still the raising of hogs together with accelerated development of herbivorous animals. In suburban areas and in places where transportation is convenient, attention should be given to development of dairy cows. Milk goats should be developed in the north, and cows to provide both meat and milk should be developed in the south for further improvements in market supply.

Fourth, sideline industries and commune and brigade industries should give attention to the overcoming of blind action. They should base themselves on the farming and breeding industries in accordance with market needs and availability of resources, giving emphasis to consumption goods and to the service trades. At the same time, out of consideration for rural need for all around development, they should develop energy industries, raw materials industries, construction industries, transportation, supply and marketing, and other industries, particularly developing labor-intensive trades and industries, and the production of traditional products able to compete in domestic and foreign markets.

Fifth, while continuing to restrict the extent of deep sea catches, to protect fishing industry resources and to bring about increased breeding of resources, the main efforts of the fishing industry should be vigorous fish hatching, particularly efforts at intensive hatching of high yields from ponds, small lakes, and other small bodies of water to effect fairly rapid increase in fresh water fish output in order to improve the situation of insufficient supplies of aquatic products in markets.

Several Recommendations

In order to do a good job in the readjustment of the agricultural structure, corresponding action has to be taken in policies, science and technology, investment and commodity flow.

1. Continued study of agricultural resources, socio-economic surveys, and agricultural planning work, with prompt application of zoning results to the formulation of agriculture development plans and guidance of present production realities.
2. Consistent policies. It is proposed that in grain growing areas, a policy of no change for several years in requisition grain procurement quotas be instituted, with money being paid at negotiated prices for additional amounts purchased after basic requisition procurement figures have been fulfilled. For major economic crop production areas, in addition to setting minimum basic grain rations, policies linking cotton and grain and sugar and grain might be instituted, or else exchanges might be permitted within certain limits. In areas in which forestry or livestock predominate, award sale policies for forestry and livestock production should continue in effect to support their earliest implementation of programs for production in which forestry and livestock raising predominate in order to hasten the pace of construction.
3. Solution to problems in the field of goods circulation. With growth of the rural commodity economy, problems in commodity flow are mainly blockage of flow channels and numerous intermediary links. For some farm products, prices are unreasonable, transportation, storage and processing are not part of a continuous process, and so when goods are scarce they are hurried to market only to have the supply cut off when they are too numerous. There is even refusal to purchase in some cases, causing unnecessary losses in production and dampening the enthusiasm of the masses. Flow problems ramify into numerous fields including the commercial system, policies, and business mentality, and basic reform will require a process. However, at the moment there must be, and there can be, certain necessary readjustments and improvements. For example: one is general promotion of a purchase contract system for agricultural by-products, contracts being signed directly between business or supply and marketing units and communes and brigades, purchase guarantees being made in the contracts with communes and production brigades being permitted to dispose of portions in excess of contracts. Second is revival and establishment, in accordance with organized commodity flow in economic zones, of traditional economic zones allowing direct contact between producers and marketers to reduce intermediary links. Third is setting up of more purchase and marketing points in a network, with planned increases in transportation, processing, and cold storage.
4. Readjustment of the structure for agricultural investment and the scientific research system. In the past, agricultural investment has been extremely irrational. Along with future readjustment of the production mix should come strictly limited investment in the most urgently needed projects and in those in which quick results from limited investment can be obtained, such as funds for enhanced building of forestry and the grasslands, building up of seed work, soil improvement, intensification of agricultural research, education and spread of technology.

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GRAIN, OIL STORAGE MANAGEMENT MUST BE IMPROVED

Beijing ZHONGGUO CAIMAO BAO [CHINA FINANCE AND TRADE JOURNAL] in Chinese 31 Oct 81
p 2

[Article: "Stimulate the Food-Grain and Oil Warehouses To Improve Business Management and Exert Efforts To Increase Revenue and Cut Down Expenditures; Nation's Food Grain and Oil Storage Inspection Conference Asks That Economic Responsibility System Be Carried Out According to Plan and Step by Step"]

[Text] The national food grain and oil storage inspection work conference recently held in Beijing has asked the nation's food-grain and oil warehouses to implement the economic responsibility system according to plan and step by step.

The nation's food-grain and oil warehouses store and distribute a total of 300 billion jin of food grains a year, and over 16 billion jin of edible oil and tallow. The volume of business is large. In recent years, the nation's food-grain and oil warehouses have made progress in the scientific protection of food grains, improving business management and implementing mechanization of granaries. But the business management system of the food-grain and oil warehouses cannot adapt to the demands of present economic development, outstandingly manifested by a separation of administration and business operations, authority, duty, benefits in management, eating "from the big pot" and egalitarianism, causing greater losses as the business volume of the granaries becomes larger, and seriously affecting the management enthusiasm of the enterprises and workers. To improve this situation, the granaries in some localities, such as Beijing, Tianjin, Shanghai, Xian, Shenyang, and Qingdao, have carried out tests of the economic responsibility system and realized preliminary results.

The conference confirmed the experience of the test points of the above-mentioned regions and pointed out that the nation's food-grain and oil warehouses can gradually implement the following two economic responsibility systems: One is to establish "fixed quotas for costs, increase revenue and cut down expenditures, and keep a portion of the profits." At granaries implementing this type of economic responsibility system, losses due to policy and expenditures and costs which they cannot control themselves are borne by the higher managerial departments and are reported and written off in exact amounts. Expenditures and costs of business management controlled by the granaries themselves are set at rationally fixed amounts in order to increase revenue and cut down expenditures and to implement the keeping of a portion of the profits. The other [economic responsibility system] is a "rental system." This is to regard the granaries as "hostels

for merchandise" and to serve the "owner of the merchandise" in receiving food grains, keeping and storing and shipping, and financial accounting. The "owner of the merchandise" and the "merchandise hostel" are related economically and by contract. Whoever stores the food grains pays the money. In this way, the storage operation inside the food granaries and food-grain procurement, marketing, and transfer operations that are not controlled by the granaries are kept separate. Losses due to policy, and profit and loss due to business management, are separated, stimulating the granaries to exert efforts to increase revenue and reduce expenditures. The conference asked the granaries in each locality to adopt an enthusiastic attitude and take steady steps in implementing the economic responsibility system, and to step on the stones in crossing the river so as to prevent a rush of activity.

9296

CSO: 4007/118

PROCUREMENT OF FLUE-CURED TOBACCO SETS RECORD HIGHS

Beijing ZHONGGUO CAIMAO BAO [CHINA FINANCE AND TRADE JOURNAL] in Chinese 29 Oct 81
p 1

[Article: "The Nation Completes Annual Plan of Procurement of Flue-Cured Tobacco With Surplus"]

[Text] It has been learned from the National Supply and Marketing Cooperative that since the marketing of the new tobacco [crop], the progress of procurement has been rapid. Up to 10 October, the nation had procured 17.77 million dan of flue-cured tobacco, surpassing the whole year's procurement plan with a surplus, and procuring 8.05 million dan more than during the same period last year and 4.48 million dan more than the amount procured during 1978, the year of the highest amount of procurement. Of the total amount, 6.40 million dan were procured in Henan, fulfilling the whole year's procurement plan by 142 percent--3.48 million dan more than during the same period last year. Shandong Province procured 3.65 million dan, fulfilling the annual procurement plan by 121 percent--790,000 dan more than the same period last year. Hunan, Jiangsu, Anhui, and Heilongjiang provinces also completed the entire year's procurement plans with a surplus. At present, each locality is continuing to grasp middle and late period procurement tightly to strive toward procuring more.

This year's flue-cured tobacco produced a bumper yield and a bumper harvest. The estimated total yield can increase by more than 40 percent over last year's, and procurement can reach about 20 million dan. Besides satisfying this year's cigarette-production needs, there will be some surplus. The present problem is that the transfer of tobacco is not good. What is needed is for the various producing regions to grasp tightly the implementation of the plan to ship flue-cured tobacco to other places in order to actively support the production of cigarettes in marketing regions.

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CSO: 4007/118

ACHIEVEMENTS IN RABBIT RAISING REPORTED

Beijing GUANGMING RIBAO in Chinese 2 Dec 81 p 2

[Article: "Jiangsu Province Achieves Remarkable Success in Scientific Raising of Rabbits"]

[Text] During the past few years Jiangsu Province has launched a campaign for the scientific raising of rabbits centering on the breeding of superior rabbit species to promote development of the rabbit raising industry throughout the province. Statistics as of the end of July show that more than 5 million rabbits were being raised throughout the province, 47 percent more than during the same period last year, and that 880,000 jin of rabbit fur had been purchased by the state, 60 percent more than during the same period last year.

Since last year, all places in Jiangsu Province have intensified purification and rejuvenation and selective breeding of superior rabbits. Yixing, Liayang, Dongtai, Wujiang, and Gaoyou counties have conducted mass rabbit competitions, discovering and selecting a large number of superior rabbit species with large bodies, that produce large amounts of fur, and that are strongly resistant to diseases, the breeding of which they have promoted. At the same time, in the realm of pricing policies, they have instituted negotiated prices on the basis of grades to arouse the enthusiasm for the breeding of superior rabbit breeds among the masses.

In order to quicken the pace of improvement of rabbit breeds, the Jiangsu Provincial Native Animal Husbandry Products Import Company imported more than 1000 superior breed rabbits from West Germany, Japan, and France, and set up a superior breed farm. Now the province has 221 superior rabbit breed farms. These farms have supplied the masses, or have helped the masses breed, 250,000 superior variety rabbits. There are 120 artificial insemination stations for rabbits in the province, and 358 artificial insemination technicians. During the first half of this year, 60,000 breedings were done, the pregnancy rate averaging about 60 percent and a maximum of 90 percent.

In the development of scientific rabbit raising, agricultural and livestock industry professors and research units have played an active role. Jiangsu Agricultural Institute has established a domestic rabbit laboratory, has set up special courses in rabbit raising, and trained the province's first group of 50 artificial insemination technicians for rabbits in the province. The Academy of Agricultural Sciences and the Provincial Academy of Agricultural Sciences have begun research on the prevention

and control of rabbit diseases. The Academy of Agricultural Sciences has established rabbit research teams, which have developed immunization vaccines and high immunity blood sera, and have written some information materials on the raising of rabbits. Some of the major rabbit raising counties conduct several classes annually in the feeding and care of rabbits. Soem have also established rabbit raising societies and nuclear networks for rabbit research.

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CS0: 4007/138

FIGURES GIVEN FOR CHINA'S GROUND WATER RESERVES, UTILIZATION RATE

Beijing RENMIN RIBAO in Chinese 28 Nov 81 p 3

[Article by Li Weiyao [2621 1218 1031]: "Broad Prospects For Development of China's Ground Water"]

[Text] Editor's Note: Proven water reserves are about 800 billion tons per year at the current 6.9 percent utilization rate. If ground water is sensibly used, a balance being maintained between the amount tapped and replenishment, there will be an endless supply. Conversely, a lowering of the water table and a diminution in the amount, or even its depletion, will ensue.

Exploration of ground water resources by China's geological units has brought rich results. Except for the Qinghai-Tibet Plain, some high mountain areas and deserts, hydrological and geological survey work in China has now been entirely completed. Proven ground water reserves amount to 800 billion tons per year (not including Taiwan Province), of which about 300 billion tons is in the north and 500 billion tons in the south. This creates favorable conditions for the development of industry and agriculture, and for satisfying the needs of the people's livelihood.

The northern part of China has numerous plains such as the North China Plain, the Songliao Plain, the Sanjiang Plain, the Central Shaanxi Plain, and the Yinchuan Plain, which together with the five basins of Shanxi constitute the principal grain and cotton growing areas, the cultivated land area amounting to more than 50 percent of China's total cultivated land area. However, rainfall is scant, precipitation annually averaging less than 800 millimeters, and surface water amounting to only 10 percent of the country's surface water, while ground water is relatively abundant. Statistics for 17 province, municipalities, and autonomous regions show 40 billion tons of ground water are currently being tapped annually. The irrigated area is 170 million mu, and an additional more than 500 million mu of cultivated land possesses conditions for irrigation from wells. Formerly the Hebei Plain was threatened by drought, and grain output was very low. Since 1960, however, vigorous development of ground water has been done, more than 400,000 wells being sunk, to tap 10 billion tons of water annually to irrigate more than 300 million mu of fields or 60 percent of the total irrigated area.

In addition to promoting increased agricultural yields and the remarkable results achieved in fighting drought to protect harvests, the tapping for use of ground water has played a major role in urban construction. Currently numerous major cities and industrial bases depend primarily on ground water resources for their water supply. Places like Beijing, Shenyang, and Xian tap more than 1 million tons of underground water daily. As population grows and industrial and agricultural production develops, the quantity of water used will rapidly increase. It is preliminarily estimated that for the next 20 years the quantity of ground water tapped will increase two or three fold.

China's ground water resources are widely distributed and reserves are abundant, but the utilization rate is fairly low. At the present time, about 300 billion tons are used annually, of which 55 billion tons or 18 percent of the total amount of water used in the country, derive from the tapping of ground water. This is only 6.9 percent of the total amount of ground water available. On the North China Plain where the degree of ground water use is relatively high, 47.5 billion tons per year of shallow depth fresh water has been verified of which 25.6 billion tons is annually tapped, more than 20 billion tons not being put to use. Ground water on the Songliao Plain far surpasses that of the North China Plain. Proven ground water in Xinjiang Province is 26.4 billion tons annually, but only somewhat more than 1 billion tons per year has been tapped. An extremely large potential also exists in the Hexi Corridor, the Tsaidam Basin, in the southern and northern foot of the Tianshan range, and in the south.

However, the flow of ground water, as with surface water, is limited. If used reasonably, the quantity tapped and the replenishment maintained in balance, it can be used endlessly. The converse will lead to diminution, a drop in the water table, or even depletion. The shortage of supply that many cities have experienced in recent years has resulted from consecutive years of drought, excessive tapping, and little replenishment. In Beijing, for instance, ground water resources amount to about 3 billion tons annually, of which 2.6 billion, or about 86 percent of the city's total ground water, is tapped. This is near saturation. In some places, replenishment is not fully possible because of overly concentrated tapping, blind increase in the number of wells, and an overdensity of wells. Thus, it is necessary to have overall management with attention being given to conservation in the development of resources, and sensible development for use, and then this situation of shortage will gradually moderate. In urban construction and the siting of industrial plants too it is necessary to give full consideration to water resources and do all around planning.

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CSO: 4007/136

MORE BUSINESSLIKE FARMING METHODS INSTITUTED

Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 11, 5 Nov 81
pp 15 - 17

[Article by Rural Work Department, Beijing Municipal CCP Committee: "Take a Firm Grip on Restructuring of Fiscal Management as a Major Matter in the Consolidation of the Collective Economy"]

[Text] For a long time two conspicuous problems have existed in the administration and management of communes. One has been in production where responsibility, authority and benefits have not been clear cut or linked, and in distribution where egalitarianism has been practiced, seriously dampening the enthusiasm of producers. The other has been large expenditures, much waste, high costs, and poor economic results. Since 1979, we have used a fairly large amount of effort to establish and perfect systems of responsibility in agricultural production to increase the enthusiasm of producers, going on to take hold of the restructuring of fiscal management in order to lower costs and increase economic benefits. In the spring of 1980, following general establishment of systems of responsibility for production, every county and district operated pilot projects for fiscal restructuring. Once the "three autumn jobs" of harvesting, plowing, and sowing were finished, the Municipal CCP Committee decided to make the three major matters of restructuring of fiscal management, strengthening of the system of responsibility for production, and the launching of discussions of the means of becoming prosperous the main rural tasks for winter and spring. It was then that fiscal restructuring work fully got underway in suburban areas. By now, restructuring has been substantially completed at the production brigade and production team levels, and restructuring is underway in commune and brigade enterprises. At the commune level, pilot projects for restructuring have begun, and it is estimated that restructuring will be fully completed during the first half of next year.

Noticeable benefits have accrued in fiscal management of basic rural accounting units as a result of this restructuring.

First, the accumulated wealth of the collective economy has been inventoried, problems of chaotic fiscal management have been substantially solved, and a system of fiscal management has been set up and perfected. Chaotic management of property and accounts, failure of account books to square with reality, uncertainty about accumulated wealth, losses, waste, accumulation of inventories, and serious payment defaults have been common problems for production brigades and production teams.

In the course of fiscal restructuring, very great efforts were made to carry out the "four checks" (fixed assets; materials and grain in warehouse storage; credits, debts; and authentication of cash on hand). From this foundation, fixed assets were revalued in an equitable way; some unused and accumulated property and materials were disposed of; and funds temporarily received and paid out were categorized so that muddled account books that had accumulated over the years were cleaned up. In this way, accumulated wealth was inventoried, account books were made to square with actual situations, management of funds was strengthened, and circulation of capital was accelerated. Leaks were plugged and cadres were educated. In the course of restructuring, most units set up and perfected effective and workable systems of fiscal management such as a system for examination and approval of expenditures, a system for movement of goods out of warehouses, regular checking of cash payments and receipts by accountants, prompt reconciliation of accounts, and a system for regular public reporting so that fiscal management would have regulations to follow. This enhancement of material and cash management has laid a good foundation for future implementation of economic accounting to increase economic benefits.

Second, fixed amounts of expenditures for agricultural production were formulated with wide ranging implementation of the fixing of full responsibility for limited expenditures or expenses to conserve production funds. For many years, our proportional expenditures have been the highest in the country. A comparison of 1980 with 1965 shows a 2.1 fold increase in total income for basic accounting units, and a 3.1 fold increase in expenditures, total expenditures as a proportion of total earnings climbing from 35 percent to 45.3 percent, and the speed of increase in expenditures being greater than the speed of increase in earnings. Survey shows that 15 percent of total expenditures were senseless one. In the process of restructuring financial matters, each county and area selected 64 communes in different places and with different conditions as models for the use of specific sums of production funds, transmitting experiences to other communes and brigades for reference in carrying out similar actions. This year 66 percent of the 8,626 production teams that instituted systems of responsibility of specialized contracting with calculation of remuneration linked to output made operating units or workforces fully or partially responsible for expenditures. As a result of the promotion of fixed amounts of funds for production, and institution of either limited expenditures or responsibility for funds by contracting units, waste in production was greatly reduced and noticeable results were won in the saving of expenditures. Between January and July this year, agricultural production expenses of basic rural accounting units throughout the city were 1.88 million yuan or one percent less than for the same period last year.

Third, general institution of training and of checking and assigning grades to fiscal accounting personnel stabilized the corps and improved professional levels. In suburban areas, about 20 percent of fiscal accounting personnel had difficulties even with making entries into account books and figuring accounts. Some had not set up account books for several years, relying entirely on confused accountings kept in a satchel. Additionally, turnover of accounting personnel was frequent, sometimes one-third of them being replaced every year in a very unstable situation. We took a firm hold of the training of accounting personnel and restructuring work. Training classes were held at every level in the city, in counties (or districts), communes, and brigades, professional training being given to accounting personnel in general in communes, production brigades, and production teams. Once training had been given, checking and fixing of grades was done. Those assigned grades already number 7,000. In addition, certificates have been issued, and professional responsibilities clarified, equitable remuneration being provided personnel by communes

and brigades. It has been clearly stipulated that henceforth the replacement of accountants will have to undergo rigorous examination and approval procedures. As a result of restructuring, the sense of responsibility and the professional sense of accounting personnel was strengthened, and professional ability was greatly increased.

Fourth, cadres and accounting personnel at all levels established a concept of economic accounting, gave attention to getting economic results, and to increasing earnings while conserving expenditures, achieving remarkable results. For a long time, a tendency has existed among rural cadres of emphasizing production, slighting management, emphasizing output, and slighting earnings. In the course of restructuring, cadres at all levels conscientiously analyzed experiences during the past several years for their own area and their own units, dissecting representative examples of high costs and poor results and low costs and good results in a search for reasons why output did not go up and distribution levels were low, thereby strengthening their consciousness of economic accounting and the pursuit of economic results. A spirit of attention to broadening of sources of income while reducing expenditures, attention to economic analysis, study of means to produce wealth, and a seeking after economic benefits has begun to form. Between January and July this year, rather good results were obtained in increasing earnings while reducing expenditures in suburban areas. A comparison of suburban basic accounting units with the same period last year shows an increase in total earnings of 95.08 million yuan for a 21.3 percent increase, an increase in expenditures of 26.01 million yuan for a 7.2 percent increase, and an increase in net profits of 69.07 million yuan for a 81.5 percent increase, and an average per capita increase in earnings of 19 yuan.

The reason for the remarkable results from this restructuring of financial management as shown by a summary of experiences from all jurisdictions were mainly as follows:

1. Unified Conception, Strengthening of Leadership, and Taking Financial Management in Hand, Treating It as a Major Matter in Operation of the Collective Rural Economy

Restructuring of fiscal management has been done many times in the past, generally by vocational departments. In this restructuring too, at the outset some county (district) and commune leaders also considered it a matter for vocational departments. But after a survey and analysis of the fiscal management of 800 production teams in 1979, and across-the-board pilot projects in 1980, leaders at all levels in suburban areas came to realize that losses and waste in rural production were extremely alarming, that much of the wealth created through the hard work of the peasants was entirely wasted, that such a mess in financial management seriously impeded further development of agricultural production, that the great lagging behind new situations in agricultural development was a fateful problem in consolidation and development of the collective economy, and that fiscal readjustment had come to the point where something had to be done about it. Finance is an overall reflection of the economy; to give attention to the economy without giving attention to finances will not do. To operate production brigades and production teams as enterprises for commodity production without regard for economic accounting will not do. Leaders at all levels deeply perceived that restructuring of fiscal management was a major matter in running the collective economy and in hastening rural prosperity. They then placed it in an important position, and commanded all departments and all personnel concerned to give conscientious attention to it. Counties (districts), communes,

and brigades set up strong leadership teams, which were given the personal attention, supervision, and concrete leadership of leaders. The counties (districts), communes, and production brigades assigned a total of more than 18,000 people to form special teams, to concentrate energies, to concentrate efforts in time, and to do a thorough, painstaking, and solid job. This marked the first time since cooperativization that the entire party acted unanimously from top to bottom this way in a large scale restructuring of rural fiscal management.

2. Coming to Grips With Major Problems and Solving Them One By One

As a result of many years of failure to conscientiously and systematically come to grips with people's commune fiscal restructuring, problems piled up and the situation in each place was not entirely the same. Unless a firm grip was taken on fiscal restructuring, energies would be dispersed to the impairment of results. Proceeding from a foundation of wideranging investigation and study, and establishment of pilot products, this restructuring clarified the reasons for high costs and poor results as being principal chaotic management of materials and cash with numerous loopholes. Production was done without calculation of costs, and there was no fixed amount for expenses. Furthermore, the professional level of the financial accounting corps was low; there were frequent turnovers, and leadership cadres lacked a concept of economic accounting. This also made it difficult to improve the prevailing situation in fiscal management. Consequently, it was decided that this fiscal restructuring should emphasize resolution of four problems as follows: (1) Doing a good job of matters pertaining to property, materials, credits, debts, and cash in "four checks" to solve existing problems and plug holes in a strict management system; (2) formulation of fixed amounts of funds for production, instituting full responsibility for funds to reduce waste in production; (3) training of accounting personnel, instituting examination and fixing of grades, and a corps with little turnover to raise levels and make use of professionals; (4) dissection of representative examples for economic analysis; and teaching of cadres at all levels to seek after economic results and help them raise their economic management level. In short, it was measures for checking on and managing money, property and goods, for building a corps, for requiring an end to chaos, and for getting to the roots of problems. As a result of having come to grips with these several major points, and as a result of solid work for the solution of problems one by one, the results of restructuring were good.

3. Simultaneous Attention to Financial Restructuring, Discussion on Becoming Prosperous and on Perfection of Systems of Responsibility for Production in a Process of Mutual Reinforcement and Mutual Advance

It was discovered in pilot projects that some people supposed that another campaign would be launched for the restructuring of fiscal management, and some production team cadres feared they would be targets of criticism or attack, while some commune members wanted to make people the targets of criticism and attack. A larger number of people floundered in apprehension for a long time without doing anything at all. In view of this situation, we emphasized that in this fiscal restructuring, adoption of the method whereby routine daily work was strengthened would certainly bring real results in increased earnings and conservation of expenditures. In laying out the work, fiscal restructuring, launching of discussion on becoming prosperous and the establishment and perfection of system of responsibility for production were linked together and carried forward in turn. Experience has shown that the linking of these three tasks played a mutually reinforcing and mutually advancing role. When fiscal restructuring was launched from a foundation of discussions of becoming prosperous,

both cadres and the masses could very readily understand and grasp the significance of giving attention to broadening sources of income and reducing expenditures. Everyone said, "Don't fear that the rake will not bring wealth; just worry about losses through a sieve at home," and "a firm grip on the rake that brings in the money, and a firm grip on the box that holds the cash." When the broad masses of cadres and people realized that the goal of this fiscal restructuring was to become prosperous and was not for the purpose of criticizing or attacking people, cadres reduced their opposition and increased their enthusiasm, and the zeal of commune members was also great. The linking together of fiscal restructuring and perfection of systems of responsibility for production also resulted in the requirements for restructuring being implemented in every shop, every team, and every position so that there was no dodging of responsibility or empty talk. For example, after fixed amounts of production funds were designated, i.e. each contracting unit contracting full or partial expenditures to a fixed amount, the saving of production funds became a real campaign among the broad masses of people. As another example, the restructuring further clarified the responsibilities and rights of production team leaders and accountants for receipts and disbursements, statistics, and care, both amplifying what was included in the system of responsibility of management personnel and putting someone in charge of every item in financial work, which helped prevent straightening out things only to have them revert to turmoil.

4. Drawing Experience From Selected Units to Promote Overall Work, Tailored Guidance, and Step by Step by Stages and by Groups

In its work methods, this fiscal restructuring gave attention to the following several matters: First was pilot projects level by level for the municipality, counties and communes, using project experiences for the training of cadres and for the guidance of overall work. Second was institution of tailored guidance. For production teams where leadership teams were fairly strong and management levels fairly high, work was done by the teams themselves in accordance with uniform plans and requirements. In production teams where leadership teams were middling and management levels average, communes and production brigades did the checking and supervising. In teams where leadership teams were problematical or where other problems existed making it impossible for them to do things themselves, communes organized forces to help. Third was an interlinking of leaders, special teams and the masses. Arousing and relying on the masses was important, but a large part of the work required reliance on special teams for accomplishment. Four was proceeding step by step and group by group, usually beginning first with production brigades and production teams in restructuring, going on to the restructuring of commune enterprises and commune level finances. In places where manpower was inadequate, the production brigades and production teams were handled in two separate groups. The several tasks of restructuring also linked production and other work to be carried out at different stages. Fifth was following conclusion of restructuring, each county (district) organized inspection and examination prior to acceptance. In cases where matters were not as they should be and required improvement, action would be taken, with no merely going through formalities.

The work of fiscal management restructuring in the suburbs has not yet been completely finished. Restructuring of commune enterprises is now in process, and category 1 commune restructuring is still in the pilot project stage. No small amount of work remains to be done. We are determined to see this work through in an orderly way, and strive to improve fiscal management to meet new situations in the development of agriculture.

BRIEFS

COMMUNE, BRIGADE ENTERPRISE FIGURES -- During 1980, 30.5 million commune members were employed in 1.43 million commune and brigade enterprises throughout the country. Earnings for the year totaled 61.4 billion yuan, a 22 percent increase over 1979 and accounting for 34 percent of total earnings from the three levels in the rural people's communes. The gross value of industrial and agricultural output was 52.7 billion yuan, or 10 percent of gross value of industrial output for the country. Products directly provided for foreign trade had a value of 2.3 billion yuan or 80 percent of the total value of the country's exports. In 1981, the number of commune and brigade enterprises engaged in farming and raising of livestock declined; machinery manufacturing industries converted to the production of goods in short supply for light industries; farm product processing and commercial service industries saw expansion, and growth of enterprises jointly operated by production teams and individual commune members was rapid. As a result of restructuring, as of the end of this June there were 1.28 million commune and brigade enterprises, a 10 percent reduction (including seasonal reductions) from the end of last year; 27.62 million commune members employed, for an 8 percent reduction; a gross value of commune and brigade industrial output of 24.1 billion yuan, an 11 percent increase over last year; and earnings totaling 26.2 billion yuan, a 10.4 percent increase over the same period last year. [Text] Beijing NONGCUN GONGZUO TANGXUN [RURAL WORK NEWSLETTER] in Chinese No 11, 5 Nov 81 p 8] 9432

SUNFLOWER PRODUCTS -- The head of the sunflower contains between 6.5 and 10.5 percent crude fat, between 7 and 9 percent crude albumin, 48.9 percent nitrogen-free extract [3541 8644 3190 0427 3670], between 2.4 and 3 percent pectin (to increase the tastiness of cattle feed), and 10.1 percent ash content. According to measurements made at the Liaoning Provincial Academy of Agricultural Sciences, each 100 jin of powder from the head [5363 4149 4720] (powder from the head amounting to between 50 and 80 jin per mu) contains between 5.2 and 7.4 jin of digestible protein, the equivalent of between 80 and 90 jin of oats, or between 70 and 80 jin of barley, or between 60 and 66 jin of corn. During 1980 China grew more than 13 million mu of sunflowers. Figuring powder from the head yields at 50 jin per mu, the output of powder totaled 650 million jin, equivalent to between 520 and 580 million jin of oats or between 450 and 520 jin of barley, or between 390 and 430 million jin of corn, all of which was totally wasted. If a proper amount of additives were added to it on the basis of livestock nutritional needs to make a compound cattle feed, its utilization rate would be even higher. The cake residue remaining after oil has been pressed from sunflowers contains between 30 and 36 percent albumin, between 8 and 11 percent fat, between 19 and 22 percent sugar, between 15 and 17 percent natural fiber, and between 6.5 and 7.5 percent woody pulp, which can be used in the making of soy sauce, monosodium glutamate, and pastries. At the present time, most of it is used for cattle feed or fertilizer where it gives poor economic benefits. It should be developed in the direction of use as an industrial raw material. [Text] [Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 11, 5 Nov 81 p 20] 9432

ANHUI

ERIEFS

COTTON HARVEST--In 1981 Jingxian County, Anhui Province, grew a new strain of cotton known as Lumian No 1 and achieved a bumper harvest. By the end of 1981 the county had sold some 6,100 dan of cotton to the state, or 10 percent more than the preset target. [OW071251 Hefei Anhui Provincial Service in Mandarin 1100 GMT 4 Jan 82]

CS0: 4007/150

ACTION TAKEN TO INCREASE SUPPLY OF VEGETABLES IN URBAN AREAS

Guangzhou NANFANG RIBAO in Chinese 27 Nov 81 p 1

[Article: "Plenary Membership Meetings of Guangdong Provincial and Guangzhou Municipal Governments Decide to Take 10 Actions To Solve Vegetable Supply Problems in Large and Medium Size Cities"]

[Text] The Guangdong Provincial and Guangzhou Municipal Government Plenary Membership meetings that concluded yesterday decided on 10 actions for the gradual solution to vegetable supply problems in large and medium size cities in the province.

These 10 actions were:

1. Resolute implementation of a program of suburban production centered on vegetables, and conscientious putting into place of a vegetable growing area. Old city vegetable field areas should be revived and in newly built cities, where vegetable fields do not suffice, they should be augmented. The peasants should be educated in the unity of industry and agriculture and in mutual assistance between city and countryside so that they understand that doing a good job of vegetable production to assure urban supplies is in accord with the long range interests of the people, and overcome the tendency toward one-sided pursuit of high earnings, changing their vegetable fields to the growing of other crops. Henceforth, the taking over of vegetable fields must undergo rigorous examination before issuance of approval, and those unauthorizedly imposing a certain amount of vegetable field construction expenses will be fined. Likewise, communes and brigades converting vegetable fields to other crops will be assessed vegetable field construction expenses or fined. Promotion of Guangzhou Municipality's "three links" method, namely, linking grain rotation supply criteria for commune members to how well they fulfill vegetable quotas; linking distribution of money from commune and production brigade industrial sideline earnings to how well vegetable quotas are fulfilled; and linking remuneration and bonuses for commune and brigade cadres to how well vegetable quotas are fulfilled.
2. Conscientiously doing a good job of vegetable field construction. Where vegetable field water conservancy conditions are poor, readjustments and changes should be made.
3. Implementation of a system of responsibility for production. Advocacy of the linking of production to teams and to workforces provided there are "four uniformities," opposition to pure target output value or "large scale assignment of responsibilities to be handled alone." Commune members who grow vegetables should get substantially

the same compensation as those who grow other crops or commune members engaged in industrial sideline occupations.

4. Maintenance of "popular vegetables" with institution of requisition procurement policies for them. Maintenance without change of the existing forms of procurement and marketing. Uniform arrangements must be made for the internal marketing and export of vegetables.

5. Doing a good job in prevention of disasters and tiding over the slack season. A certain amount of dried vegetable production, processing and reserves must be maintained in a program of equal emphasis to vegetables, beans, and tubers. At the moment, attention must be given first to winter vegetable crops, by which is meant attention to production of vegetables needed in the current season, and attention to production of vegetables to tide over until next year's spring and summer season.

6. Improvement in vegetable farming. While intensifying ideological training of staff and workers on vegetable farms, the current irrational method of assigning work responsibility whereby the greater the supply, the larger the losses and the less the bonuses should be changed. Instead a system should be instituted whereby the more sold the greater the benefits, and the less sold the fewer the benefits so that the greater the supplies and the better the quality of service, the greater the increase in the basic funds and bonuses of enterprises.

7. Doing a good job of research for scientific vegetable growing. Large and medium size cities should establish vegetable research organizations, and in existing agricultural research organizations, vegetable research organizations should be established.

8. A good job of providing the means of vegetable production. The prevailing method of supplying major bamboo and wooden farm implements at list prices should be maintained, and use of fertilizer on vegetables should be properly increased.

9. Doing a good job of supplying vegetables to military units.

10. Strengthening of leadership. Large and medium size cities should establish vegetable leadership teams. The heads of these leadership teams should be secretaries or deputy mayors regularly responsible for attention to this work. Several times each year, the Provincial CCP Committee and the Provincial Government should also hold discussions.

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CSO: 4007/138

IMPORTANCE OF WINTER CROPS STRESSED

Guangzhou NANFANG RIBAO in Chinese 26 Nov 81 p 4

[Article by Lin Yin [2651 5419]: "Winter Crop Production and the Food Industry"]

[Text] Because of the superior climatic conditions with "greenness all year round," the winter season in Guangdong Province is suited to the growing of a wide variety of crops. The winter rice growing area accounts for about one-third of the province's total rice growing area. Not only is this remarkably effective for the rotational cropping of wet and dry lands to build up soil fertility, but is also provides a source of raw materials for development of the food industry.

Mankind's existence is dependent on food, and carbohydrates, proteins, and fats are "mother foods." The bread, cakes, and crackers that people commonly eat are made principally from wheat flour, edible oil, eggs and sugar. It is winter wheat that is the main ingredient of wheat flour, and edible oil may be pressed from rapeseed. Someone has estimated that were the area planted to winter wheat in the province to be maintained at 3 million mu, total output would be 600 million jin, which would be enough to supply all large and medium cities and towns in the province with wheat products with some to spare. Winter sweet potatoes were formerly largely used as crude foodstuff from which little economic benefit was derived. But if processed into sweet potato powder or sweet potato sticks, sweet potatoes become relatively easy to store, and their utilization value increases. When sweet potatoes are refined with citric acid, in particular, they may be used as ingredients for blending with carbonated beverages, ice cream, and fruit candies, and have rich food value.

Meriting even greater praise are soybeans, broad beans, and peas, which have great uses in the food industry. Reportedly, during the past several years Italy has used soybeans to manufacture more than 240 different kinds of food products. Using fine grinding, fermentation, and heating, they have broken down the protein in soybeans into amino acids that the human body is able to absorb readily, and mixed these with various nutrients to form a "perfect food." The prodigious consumption of bean curd, soybean milk, fermented bean curd, and such bean products, are inseparable from soybeans. The structure of flour made from broad beans is rather fine. When used to make bean noodles, the noodles are of a whiteness, luster, and flexibility rivaling that of those made from mung beans. Peas may be processed into sauces or canned, and make a handy vegetable for use at home or when traveling.

A great potential exists for winter root crops; many famous native specialties being produced from common root vegetables. Radishes, for instance, are a low priced vegetable, but after processing to become "Chaozhou preserved vegetable" or "Spicy mixed vegetable," their price is greatly increased. "Preserved Sichuan vegetable" enjoys a reputation both in China and abroad. It is basically a mutant of mustard greens. Many places in Guangdong Province have successfully experimented with growing it, and the area planted to it should be enlarged in the future. The Huizhou meicai (2734 5475), so famous in all the countries of Southeast Asia, has always enjoyed great popularity. Then there are the rutabagas produced by Xinhui and Shunde, which are non-staple foods kept on hand in households. It may be seen that winter crop production is truly closely related to the food industry.

Most of Guangdong Province's wintercrops are of the high yield kind. Even though yields from some farmland are low, as for example wheat yields of only slightly more than 140 jin per mu, high yields can reach 300 or 400 jin per mu. The key to increasing per unit yields of winter grown crops lies in intensive farming rather than scant harvests from extensive farming, and intensive care rather than slapdash cultivation. After the period of the "little snow" [around 22 November] has passed, the season for promoting vigorous growth of winter crops is at hand. With careful tending, at harvest time the following spring a vast supply will be available to the food industry.

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CSO: 4007/138

BRIEFS

BUMPER HARVEST--Zhanjiang Prefecture of Guangdong Province reaped a bumper harvest of late rice despite serious natural disasters. The total growing area of improved varieties of late rice in the prefecture is 1.35 million mu and the average yield per mu is over 600 jin, which is some 200 jin more than the ordinary variety of rice. There are some 38,700 mu of high-yield fields in the province. Peasants in Yangchuan County reaped 566 jin of an improved variety of rice and 181 jin of another improved variety of rice per mu despite floods. [HK011021 Guangzhou Guangdong Provincial Service in Mandarin 1000 GMT 15 Dec 81]

SUGARCANE HARVEST--Guangdong has had a bumper sugarcane harvest and all sugar mills have been busy crushing cane from 10 days to half a month in advance. Beginning with the last crushing season, the state instituted a policy for Guangdong cane sugar production of "1 ton of sugar equals 1 ton of grain," the state making an award sale of 1 ton of grain to sugarcane farmers providing sugarcane to produce 1 ton of sugar. This resolved the contradiction between expansion of sugarcane or grain production. This year the area in the province devoted to the growing of sugarcane amounted to 3.25 million mu, a 690,000 mu increase over last year. As a result of the extremely high enthusiasm of sugarcane farmers, the prompt and meticulous care given the fields, and the fine weather since the beginning of summer this year, the sugarcane grew profusely. It is estimated that sugarcane provided for the manufacture of sugar in the province will average yields of 400 jin per mu more this year than last for a more than 30 percent increase in the total amount of sugarcane as compared with the last crushing season. This year Guangdong Province built seven new sugar mills and enlarged 14 old ones, increasing the daily crushing capacity during this crushing season by 9.450 tons. Before beginning crushing, each sugar mill diligently maintained its equipment and sent people to cane growing areas to conduct surveys, striving "to cut the ripe cane first" to assure a good sugar output rate from the sugarcane. [Text] [Guangzhou NAFANG RIBAO in Chinese 29 Nov 81 p 1] 9432

CSO: 4007/138

BRIEFS

WATER PROJECT--Construction having started in April 1981, a water project to divert water from the Nenjiang River to Lianhuan Lake is well underway. Water has been diverted to the lake while construction is on. By the end of September, over 2 billion cubic meters of water had been diverted from the Nenjiang River, of which 500 million cubic meters flowed into Lianhuan Lake. This ample source of water has restored fishing production in the lake, irrigated a vast expanse of reed ponds and contributed to promoting agricultural, forestry, livestock, sideline and fishing production in the western part of Heilongjiang Province. This is a comprehensive water project in which the state is investing 4.7 million yuan. Construction of it, nearly 80 percent complete, is being jointly undertaken by the Nenjiang Prefectural Administrative Office, Qiqihar Municipality and the Lianhuan Lake Aquatic Products Farm. [SK051103 Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 4 Dec 81]

CSO: 4007/150

ENVIRONMENTALLY CONTROLLED VEGETABLE PRODUCTION PUSHED

Nanjing XINHUA RIBAO in Chinese 31 Oct 81 p 2

[Article: Strengthen Cooperation in Scientific Research, and Expand Demonstration and Popularization; Cultivation in Protected Areas for Vegetables in Our Province Progresses"]

[Text] Research and application of cultivation techniques in protected areas for vegetables in our province have achieved relatively great progress. According to statistics, at present the area of large, medium-size, and small canopies for vegetables and ground coverings for cultivation by mulching has already reached over 22,300 mu, which is 12.39 percent of the permanent area of vegetable fields throughout the province. The whole province has 98 facilities for the mass cultivation of seedlings. According to the statistics from 10 cities, during the past 2 years over 70 vegetable-planting brigades have popularized and used mass seedling cultivation over large areas for such produce as tomatoes, fruits, melons, and beans.

Cultivation of vegetables in protected areas includes such methods of cultivation in greenhouses, cultivation under plastic canopies and mulching, and mass cultivation of seedlings. Using these methods enables one to cultivate vegetables in seasons of low temperature and cold. They are an important measure for solving the supply of vegetables during periods of reduced demand and to increase the varieties. As early as the beginning of the 1960's and the beginning of the 1970's, the Jiangsu Provincial Agricultural Sciences Academy and related units launched experiments and research in cultivating vegetables with small plastic canopies and large canopy coverings. In recent years, they also began research in the cultivation of vegetables by mulching and in techniques of mass cultivation of seedlings. Because of close cooperation and coordination by all sides, and because of simultaneous experimentation, demonstration, and popularization, this project made greater progress.

The popularization and application of the new technique of cultivating vegetables in protected areas have served to promote large-area production of vegetables. After the cities of Xuzhou and Lianyungang developed production under large canopies over relatively large areas, cucumbers, peppers, tomatoes, and similar vegetables could be continually marketed during the first 10 days of April--30 to 50 days earlier than with production in open fields. In winter, celery,

garlic bolt, and melandrium nigrescens could be massively produced, thus improving market supply before and after 1 January and spring vacation. The tomatoes cultivated under large canopies this year by the Jianguo No 3 Production Team of Shizishan Commune in Xuzhou City were marketed beginning 7 May; up to 20 June the yield was 12,000 jin per mu and the production value was 3,007 yuan per mu. Cucumbers cultivated under large canopies by the Xiaxi production team of the Hongmen Brigade in Lianyungang Municipality were marketed on 14 April. Up to the end of June, the yield was 16,000 jin per mu and the production value was 2,700 yuan per mu. Last winter and this spring, Nanjing Municipality cultivated an area of 8,795 mu under small canopies—a 7.7-fold increase over the area in 1977. Now, 23 varieties are cultivated under coverings, not only increasing the varieties of the supplies during the less popular season, but also greatly prolonging the supplying period. In recent years, the number of tomatoes, peppers, and cucumbers marketed early before 20 June in Nanjing Municipality has greatly increased over the past.

The development of cultivation of vegetables with ground coverings in our province has been rapid. Cooperation and research officially began in the spring of 1980. The area of cultivation of vegetables by mulching this spring and this summer already reached 9,000 mu, and the varieties cultivated increased to 35 kinds. Every locality has reflected that cultivation by mulching produces such results as increasing the temperature, preserving moisture, preserving fertilizers, preventing the soil from becoming hardpan, preventing waterlogging, preventing the soil from again becoming alkaline, and promoting early maturation and increased crop yields. Generally, vegetables can increase their yield by 18 to 60 percent, some even doubling. At the same time the operation is convenient, labor can be conserved, and farming costs can be reduced.

Since the application of mass cultivation of seedlings began in 1976, it has fully shown its superiority in resisting natural disasters, shortening the seedling age, improving the quality of seedlings, promoting early maturation, and increasing the yield. It has served greatly to ensure the completion of the planting plans for vegetables. The area of mass cultivation of seedlings of tomatoes, eggplant, and peppers constitutes 41.8 percent of the total area of actual planting, the area of mass cultivation of cucumber seedlings constitutes 70.3 percent of the area of actual plantings, and the results are good.

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CSO: 4007/118

BRIEFS

GRAIN PRODUCTION--In 1981 Suqian County, Jiangsu Province, produced more than 800 million jin of grain, showing an increase of some 90 million jin above the 1980 level. The total revenue from agricultural and sideline production in 1981 amounted to 148 million yuan, or 17.5 percent more than in 1980. This resulted in an increase of more than 15 yuan in the average per capital income distributed from the collective. [OW071251 Nanjing XINHUA RIBAO in Chinese 27 Dec 81 p 2]

AGRICULTURAL PRODUCTION--In 1981 Nantong Prefecture, Jiangsu Province, produced 136 million jin more grain than in the preceding year. Compared with 1980, cotton production in 1981 increased by 330,000 dan and oilseed output was up by 22.91 million jin. The number of hogs raised in 1981 exceeded the planned number by 242,000 head. Especially noticeable was the output of silkworm cocoons in 1981 which was more than 200,000 dan, hitting an alltime high. The total 1981 income from forestry, animal husbandry, sideline production and fisheries was 130 million yuan more than in 1980, or an increase of 25.5 percent. The 1981 output value from brigade-run factories totaled 290 million yuan, up by 55 percent compared with the 1980 figure. [OW071251 Nanjing XINHUA RIBAO in Chinese 26 Dec 81 p 1]

CSO: 4007/150

PROGRESS IN COTTON PROCUREMENT DESCRIBED AS SLOW

Xian SHAANXI RIBAO in Chinese 21 Oct 81 p 1

[Article by staff commentator: "Exert Striking Efforts To Grasp Well the Work of Cotton Picking and Procurement"]

[Text] At present, the progress of cotton procurement in our province is slow. According to statistics compiled by concerned departments, as of 10 October the whole province has procured 86,000 dan, far from fulfilling the plan.

The slow progress in cotton procurement, objectively speaking, is related to the several overcast and rainy days that occurred at the end of September and the beginning of October. But, viewing the actual situation, the main reason is still the problem of the work. Some localities overestimated the damage and were discouraged about cotton production. Some localities did not implement policies, thus affecting the enthusiasm of the masses to pick cotton and to submit cotton for sale. In other places, because the leadership was relaxed, there were cases of loss of cotton, etc. The provincial committee and government held an emergency telephone conference on the evening of 12 October, and an emergency notice was issued on 13 October asking every prefecture committee, city committee, county committee and government to assign special personnel to take charge and organize a group of cadres to go to the frontlines to undertake the picking and procurement work at one stroke during the few days of good weather when the weather was favorable for the concentrated opening of the cotton boll, so as to rapidly change the present situation of slow progress in the procurement of cotton.

After this year's cotton dropped in yield, cadres and masses of some localities were pessimistic and discouraged about procurement work. Some even gave up. At present, that is the main ideological barrier in cotton procurement work. A drop in yield because of disaster is a fact. But we should see that the early growth trend of the cotton was very good and more cotton produced bolls. The yield of summer bolls and presummer bolls in many localities surpassed the best level in history. Although the cotton bolls rotted somewhat because of overcast and rain, no small number of good bolls remain. At present, many localities have already recovered an average of 20 to 30 jin of ginned cotton per mu. If the work is done well, the picking is carried out in time, the harvest and picking are done well and carefully, and the loss is halted, then the yield and the

amount of procurement of cotton will be better. Now, the key problem is concentrating on the work.

Procurement of cotton is work of a mass character. By undertaking political and ideological education, we must insure that the cadres and masses develop patriotism and love for the collective so that they will pick cotton early, submit cotton early, sell more cotton, and sell cotton well. At the same time, we must start out from the actual situation, conscientiously solve well some concrete policy problems in cotton procurement. The responsibility system of linking production to remuneration must be realized. What was promised in the spring must be fulfilled now; we must never "make a promise and let the wind blow it away" and thus lose the confidence of the people. Because of the serious natural disasters this year, the yield of cotton has dropped on a widespread basis. Each locality can combine the actual situation and appropriately lower the goals of joint production so that most of the masses can produce surplus yields in this year of disasters and increase income. In severe disaster regions, attention must be paid to solving this problem well. This year, because of overcast and rain, the quality of cotton varies greatly; the production teams must conscientiously do the work of "five divisions" well; the procurement departments must conscientiously do the work of inspection well and insist on the policy of paying good prices for good cotton; they must not downgrade or keep prices low, and they must not upgrade or raise the price at will. The accounting and payment for cotton sold must also be carried out strictly in accordance with the relevant policies and regulations. Various useful measures must be taken to prevent loss of cotton.

At present, wheat sowing has basically ended. The governments at each level in the cotton producing regions must undertake the work of picking and procurement of cotton as an important task. The 2 months of October and November must be grasped well with one effort to pick all the cotton that should be picked and to procure all the cotton that should be procured as quickly as possible.

9296

CSO: 4007/82

EXHORTATION AGAINST REMOVAL OF LAND FROM CULTIVATION FOR CONSTRUCTION MADE

Beijing RENMIN RIBAO in Chinese 28 Nov 81 p 2

[Article: "Strictly Control Use of Land for Capital Construction"]

[Text] During the 30 years since the founding of the Chinese People's Republic, Shaanxi Province's cultivated land area has declined by 11,084,000 mu. This amounts to one-fifth the province's presently cultivated land area. Of the total decline, 5,367,000 mu has been in the famed grain growing area of the Central Shaanxi plain.

A look at the situation in Shaanxi shows the decline in the cultivated area to have been largely for the three following reasons: First was use of land for capital construction; second was retrenchment of cultivation to return land to forests or change it to pasturage; and third was abandonment of cultivation because of natural disasters or other reasons. The equitable use of land with retrenchment of cultivation for return to forests or conversion to pasturage fits in with the realities of the local agricultural production, and land on which cultivation has been abandoned may be returned to cultivation. Only in the case of land used for capital construction will there never be a return to cultivation. According to figures provided by the Provincial Statistical Bureau, since the founding of the People's Republic, almost 6 million mu of land in the province has been taken for capital construction, an average of 183,000 mu per year. During the past 2 years, as a result of the shortening of the national capital construction front, the standard of living of the peasants has gradually risen and the three situations through which land has been removed from cultivation have begun to change. In 1980, for example, the ratios of land use for capital construction by the state and commune and brigade collectives have declined by 23 and 37 percent, while the ratio of land use for commune member construction has risen to 40 percent. Therefore, the focus of control should be placed on commune and brigade collectives, and more particularly on commune member expansion of village construction.

It is true, of course, that there are many reasons for the decline in cultivated land area, a fair number of them legitimate ones. In the future, it will be necessary to take more cultivated land as circumstances require. However, one has to realize that the steady decline in the amount of cultivated land has a great impact on grain output. Even though Shaanxi Province's present average per mu grain yields are about twice what they were during the period immediately following founding of the People's Republic; nevertheless, the province's self-sufficiency in grain is not what once it was. The protracted eating of state-allocated grain has increased burdens on

the state. In some places, notably in suburban areas, the cultivated land area has become increasingly less, and in some places this has adversely affected the peasants' livelihood. A survey done by units concerned of 37 production teams in Xian's close-in suburbs shows cultivated land to average less than 0.35 mu per capita, and in individual production teams it averages only 0.2 mu per capita. As a result, maintenance of the livelihood of these peasants through agriculture has become problematical. This shows that strict control of the use of land for capital construction is necessary.

9432

CSO: 4007/136

MEASURES TAKEN TO REDUCE LOSS OF CULTIVATED LAND TO CONSTRUCTION

Beijing RENMIN RIBAO in Chinese 28 Nov 81 p 2

[Article: "Shandong Province Conscientiously Inventories Use of Land for Construction Purposes; Strengthens Propaganda and Education to Protect Land Resources"]

[Text] The Shandong Provincial People's Government has undertaken an inventory of land requisitioned by the state and collectives for construction since 1966. It has dealt with the illegal use of more than 560,000 mu of land, returning 160,000 mu of it to production teams of cultivation, and requiring performance of additional requisition procedures for 400,000 mu of it, with compensation being paid to production teams.

As a result of the use of land for construction and population growth, the average amount of cultivated land per capita in the province has declined from 2.9 mu in the period immediately following founding of the People's Republic to 1.49 mu. In order to conserve land and halt arbitrary requisitioning and wanton use of cultivated land for capital construction, during the spring of 1979, the Shandong Provincial People's Government decided to make a comprehensive inventory of all land used for construction by the state and the collective since 1966. In the course of the inventory, the Provincial People's Government emphasized propaganda and education work. In Weifang Prefecture, for example, the following accounting was made: In the 21 year period between 1956 and 1977, the prefecture lost more than 3.7 million mu of cultivated land, amounting to the land area of four neighboring counties. Much of this land was bumper crop fields on plains and near cities and towns. On the basis of the prefecture's 1977 average yields of 600 jin per mu, each year the harvest was less by more than 2.2 billion jin or the grain ration for 17 years for Weifang City's present population. For the more than 40,000 mu of land that had been requisitioned but not used for a long period of time, the annual loss of grain production amounted to more than 20 million jin. At the same time the Provincial People's Government also devoted attention to the summarization and spread of the experiences of construction units that had "cherished the land like gold." Units of this kind in Jining Prefecture used methods such as filling in of a bay and diverting rivers, tearing down of single story houses to build multi-story houses, strict control over construction density, and rational planning of layouts to save more than 85 million mu of land.

For illegally used land that came to light in the inventory, the Provincial People's Government clearly stipulated handling methods. All who had used land that had not been requisitioned must write out an examination report and complete reporting and approval procedures in accordance with authorization for approval, all excess land being returned. Prior to approval, all construction must stop, and completed construction may not be used. In cases where much was requisitioned and little used or where no use was made of requisitioned land, all in excess of needs, or all that has not been used, must be returned to production teams for cultivation or be allocated to other units urgently in need of it. Where land was privately transferred or bought and sold, it must be handed over without exception to production teams for their cultivation. When truly necessary, requisition procedures must be carried out. In handling applications for the use of land, units in charge in all jurisdictions should follow a step by step system of land examination and approval. Before requisitioning land, construction units must have ready and available their construction plans, funds, and materials, and they should carefully choose sites and design sensibly to conserve use of land.

9432

CSO: 4007/136

TAIAN PREFECTURE RESISTS DROUGHT, PLANTS WHEAT

Jinan DAZHONG RIBAO in Chinese 6 Oct 81 p 1

[Article by Yi Shanyao [0060 0810 1031] and Wang Dianjun [3769 3013 6511]: "Party and Administrative Leaders of Taian Prefecture Go Deeply Into the Frontline of Drought Resistance, Lead in Separate Aspects of Carrying Out Autumn Planting Well"]

[Text] Leading comrades of the prefecture, county, party and administration of Taian Prefecture have gone deeply into the frontline of drought resistance and wheat planting, strengthened survey and study, implemented leadership in separate categories, and promoted the development of drought resistance and autumn planting in the whole prefecture. As of 2 October, the whole prefecture had provided moisture for 2.47 million mu, tilled 2.9 million mu, and sown 2.1 million mu, fulfilling 72 percent of the wheat planting plans.

This year, this prefecture suffered severely from autumn drought, which caused definite difficulties in planting wheat well. In the face of this situation, the leading comrades of this prefecture, county, party and administration went deeply into the basic levels to hold discussion meetings and carry out surveys, and then, separately implemented different drought-resistance measures according to the different situations of drought and water sources. In the 2 million mu of wheat fields in the Tai, Lai, Fei, and Ning Plains and the two banks of the Daqinghe where water sources are more adequate, they emphasized applying sufficient fertilizers, creating good moisture, and sowing in time and early to assure that enough plants were planted and planted well. At the same time, they also prepared to appropriately expand the planting of some wheat so as to use bumper harvests to supplement deficiencies. For example, commune brigades with good water source conditions in Feicheng County decided to expand the planting of 40,000 mu of wheat through readjusting crop openings in spring fields. In the 1.4 million mu of wheat fields where conditions of water sources were poor or where water sources were lacking, they transferred a group of cadres to provide help in key ways in these regions, in particular by lowering the fixed production quotas and by increasing tools to resist drought, revising the original production contracts, and thus they mobilized the enthusiasm of the commune members for drought resistance and autumn planting. For example, the Buling Brigade of Anzhuang Commune in Feicheng County decided to plant 1,600 mu of wheat. On the basis of the originally signed production contract and linking

production to the laborer, it popularly increased tools to resist drought, and appropriately lowered the originally established production quotas. The masses actively carried out drought resistance and autumn planting. As of 18 September, the whole brigade mobilized over 1,000 laborers, 400 pairs of water buckets, carts, and over 100 pushcarts each day to carry water to provide moisture and to undertake the planting of wheat. The daily sowing reached over 70 mu.

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CSO: 4007/82

LINYI PREFECTURE SUCCESSFUL WHEAT PLANTING DESCRIBED

Jinan DAZHONG RIBAO in Chinese 8 Oct 81 p 1

[Article by Qu Haoshan [2575 1170 0810] and Wang Enmin [3769 1869 3046]: "People of Linyi Prefecture Overcome Difficulties To Resist Drought and Undertake Planting of Wheat With the Old Spirit of Fighting Menglianggu Battle"]

[Text] The cadres and masses of Linyi Prefecture revived the old spirit of fighting the Menglianggu battle to overcome difficulties, resist drought and undertake the planting of wheat. As of 4 October, the whole prefecture had already sown 3.97 million mu.

After the provincial committee and the provincial government held an emergency telephone conference on drought resistance, the Linyi Prefecture committee and the administrative office immediately took decisive measures to further strengthen leadership in drought resistance and autumn planting with the help of the drought-resistance working group of the provincial committee. At the administrative office, aside from the main responsible comrades who remained in the office to conduct official business, all other comrades divided their work and took charge of each county. Each county also took corresponding measures and took drought resistance and wheat planting as the central tasks in the present farm village work. Rizhao County centralized leadership and concentrated labor forces, farm machinery, and time to carry out drought resistance and autumn planting. The whole county sent 240,000 people to the fields; while fully utilizing the original water sources, they dug over 400 mountain springs, intercepted underground water flow at 380 locations, mobilized 5,000 farm machinery units, implemented the method of "several unifications," mobilized the enthusiasm of the collective and the commune members for drought resistance and wheat planting, and hastened the progress of autumn planting. As of 4 October, the whole county had sown 280,000 mu, constituting 51 percent of the plan.

In the struggle of the people of Linyi Prefecture to undertake the planting of wheat, they manifested the revolutionary spirit of not fearing difficulties or hardship and of making courageous advances. In the communes and brigades with poor water conservancy conditions in Yishui County, buckets carried over shoulders, carts, and basins were used to carry water, the people dug for water and sought water, resisted drought and undertook planting, striving to plant one more ridge and one more fen. Statistics as of 4 October showed that the whole county had already sown over 260,000 mu. Commune member Zhang Xingwang [1728

5281 2489] of the Dongzhi Brigade of the Daigu Commune in Mengying County joined together commune members of the 12 families of the joint responsible fields when water sources were extremely deficient to struggle day and night, to drill and move mountains in order to build a canal for guiding water so as to create moisture, and planted over 60 mu of wheat; they also supported neighboring commune members in planting over a dozen mu of wheat.

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CSO: 4007/82

JINAN MUNICIPALITY WHEAT PLANTING EFFORTS SUCCESSFUL

Jinan DAZHONG RIBAO in Chinese 14 Oct 81 p 1

[Article: "City of Jinan Strengthens Leadership, Emphasizes Key Points, Implements Measures; 1 Million Mu of Bumper Harvest Fields Are Planted Well and in Time"]

[Text] The city of Jinan started out from the actual situation in drought resistance and autumn planting, took the bumper harvest fields that constituted two-thirds of the area of wheat fields as the key in drought resistance and planting, and concentrated forces to undertake the work well. At present, the sowing task of the whole city's 1 million mu of bumper harvest fields, except for the 60,000 mu of Yellow River beach land with an accumulation of water, has been completed in time.

This year, the outstanding characteristic of drought resistance and planting in the city of Jinan has been that the leadership at each level emphasized the work, started early, moved quickly, and the measures were concrete and forceful. Before autumn planting, the city committee's chief responsible comrades went to the communes and brigades personally to survey the drought situation and understand the preparations for autumn planting; they held many meetings to spell out the drought situation and to calculate the time, to summarize the experience and lessons in drought resistance of past years in face of the worried feelings of fearing difficulties and waiting for the heavens to rain that existed among some of the cadres and masses; they strengthened the confidence of the cadres and commune members to carry out the work of drought resistance and planting well. To strengthen leadership, the leadership of the city committee, the city government and the county and prefecture committees led more than 2,300 cadres deeply into the basic levels to take charge of the work of separate expanses of land, to take drought resistance and planting as the central tasks, and promoted progress in drought resistance and autumn planting. In leading drought resistance and planting, the city of Jinan took the 1 million mu of bumper harvest fields with irrigation conditions as the key; fuel, electric power, machinery, water and fertilizers were insured as key supplies; the standards were high, the demands were strict and the fields were planted fully and well in time. At the same time, repair of various water conservancy facilities was strengthened and the water sources of the Yellow River and the Xiaoqinghe were fully utilized. The irrigated area was expanded by one-fourth over last year's area; thus the initiative was taken to make up for the loss due to severe drought in the mountain regions.

In regions where irrigation conditions were poor, the masses were mobilized to carry water so as to provide moisture and to undertake planting; many ways were used to complete the task of planting at least 3 fen to half a mu of wheat per person, and food grain rations and seeds were insured. Up to the present, the whole city has already sown 1.25 million mu of wheat, constituting 84 percent of the plan. Zhangqiu County and some communes and brigades in other counties which have already completed the task of autumn planting are actively adjusting the crop opening so as to expand the planting area.

9296

CSO: 4007/82

NEW CROP BALANCE REPORTEDLY BRINGS BUMPER YIELDS OF BOTH COTTON, GRAIN

Shandong DAZHONG RIBAO in Chinese 11 Nov 81 p 1

[Article by Niu Lunyu [3662 0178 3768] and Wen Fengchun [2429 7364 4783]: "Suitable Expansion of the Growing of Cotton Promotes Double Bumper Harvests of Both Grain and Cotton, Experience Over the Past 2 Years in the Readjustment of Farming Patterns in Shanghe County Has Shown"]

[Text] Does the adaptation of general methods to local situations for the expansion of cotton growing in the cotton growing region of western Shandong impede development of grain production, or does it promote grain production? Experiences in the readjustment of farm crop patterns carried out during the past 2 years in Shanghe County have shown that expansion of the cotton field area for increase in economic income not only does not impede development of grain production, but rather promotes grain production. A comparison of this year with last shows that despite a 100,000 mu reduction in grain fields, and a 100,000 mu expansion in cottonfields, grain output increased by more than 100 million jin and cotton output increased by 100,000 jin for a double bumper harvest in both grain and cotton.

Shanghe County, located on the plain in northern Shandong and averaging somewhat more than 2 mu of cultivated land per person engaged in agriculture, has historically been a major cotton growing county. During the period immediately following Liberation, the people "got rich on cotton." Subsequently, as a result of the effects of leftism, the operation of a single crop economy in agricultural production disrupted the agricultural crop patterns. As a result of squeezing out of grain by cotton, a vicious cycle, impoverishment of the collective, and hardships for commune members, by 1979 commune members averaged distributions per capita of only 45 yuan. Following the Third Plenary Session of the 11th Party Central Committee, the County CCP Committee and the county government revived and enlarged upon the party's superior work style of seeking truth in facts, adapting general methods to local situations in a readjustment of the grain and cotton crop patterns. In 1980 when the grain growing area in the county was reduced by 80,000 mu to grow cotton, a slight drop in grain yields resulted from a serious drought, though a bumper cotton crop was harvested. Total ginned cotton output was more than three times what it had been in 1979; total earnings from agriculture increased by 62 percent, and per capita income averaged 73 yuan. In 1981, grainfield acreage was reduced from 600,000 mu to 500,000 mu, and cotton field acreage was increased from 250,000 mu to 350,000 mu. After triumphing over various natural disasters, both grain and cotton output reached an all-time high. Total grain output increased by 44 percent and total ginned cotton output increased by 60 percent over the previous year. Total earnings from

agriculture increased by 59 percent; commune member distributions averaged 130 yuan for a 78 percent increase, and collective accumulations amounted to 13 million yuan, a 48 percent increase.

Reasons why Shanghe County was able to assure tremendous increases in grain output in a situation of contraction of grainfields and expansion of cotton fields were as follows:

(1) The bumper cotton harvest provided considerable funds for fertilizer and for production, creating conditions for expansion of grain production. Last year's increase in cotton output produced much oil, much fertilizer, and much money. In addition to the expansion of cotton reproduction, this provided 10 million jin of cottonseed cake for grain production plus more than 10 million yuan of production capital for the purchase of more than 20,000 tons of phosphate fertilizer, and 25,000 tons of other kinds of fertilizer. Throughout the county, 20 jin per mu of cotton cake fertilizer, more than 80 jin per mu of phosphate fertilizer, and 100 jin per mu of other fertilizer was spread on grainfields. The amount of both organic and inorganic fertilizer applied exceeded all-time highs. Last winter and this spring, eight new water diversion ditches totaling 17,000 meters in length were dug in the county, and 14 old ditches totaling 15,000 meters in length were cleared of silt. More than 1,000 hand operated wells were sunk, and more than 800 old wells put in condition. Three-hundred sixty diesel engines, and 280 water pumps were purchased, enabling the wheat area assured of irrigation to be increased from 1979's 300,000 mu to 450,000 mu. Wheat output totaled more than 150 million jin, a 63 percent increase over last year.

(2) Adaptation of general methods to local situations in farming made the most of natural advantages and tapped the land's potential. This county has 998,000 mu of collectively cultivated land, of which 260,000 mu is saline-alkaline land, and 400,000 mu of which is fields not plowed after the harvest. Together these total 66 percent of the cultivated area. The soil in the fields that are not plowed after the harvest is friable. Soil fertility is poor, but porosity and percolatibility are fairly good, making it suitable for the growing of cotton. Additionally, cotton possesses a certain ability to resist drought and tolerate alkalinity, and can be grown in saline-alkaline soils. Formerly most of the saline-alkaline land and the fields not plowed after the harvest were used for the growing of grain. Costs were high; the labor required great; and yields low. Some plots produced less than 100 jin of grain per mu. In the course of readjustment of crop patterns, units gave attention to reducing the area of saline-alkaline and unplowed fields for the growing of wheat, using saline-alkaline land and the unplowed land for the growing of cotton, while using red soils for the growing of grain. The economic benefits were remarkable. Following reduction in the grainfield area, commune members concentrated their efforts on the building of consistently high yield fields and planting bumper yield wheat and corn fields. They boosted yields per unit of area and maintained steady growth in output of grain. In addition, this county has 200,000 mu of abandoned fields, all of which were turned over to commune members this year for clearing and cultivation. Commune members farmed the abandoned fields in a system of income to whomever sows and looks after them, and this also increased the social production of cotton and grain.

(3) The system of responsibility linking output to compensation directly related individual commune member material welfare to how good a job was done in collective

grain and cotton production. Commune members gave attention to growing grain with one hand and growing cotton with the other, using every available means to increase production. For the past several years, people have worked like a swarm of bees, workpoints were recorded in an egalitarian way, little effort was made in work, work efficiency was slow, quality was poor, and levels of production were fairly low. Following institution of a system of responsibility, however, the masses carried an exceptionally heavy load, and everyone was concerned with production. Commune members knew from experience in production that "cotton keeps grain output going up, and grain output promotes increases in cotton output." They properly handled the relationship between grain and cotton, operating both abacuses at once and taking in hand two sets of actions at the same time, took the initiative in increasing their labor investment, the contribution of fertilizer and investment of capital in production, striving to increase labor efficiency and work quality and to increase the soil utilization rate.

(4) Vigorous efforts to popularize knowledge of agricultural science to raise the level of scientific farming. Acting on the basis of the new situation resulting from agricultural readjustment, the County CCP Committee and the county government made real improvements in the leadership of agricultural science and technology work, restructured and augmented farm science teams in communes and production brigades, established and perfected farm science networks at four levels, promoted systems of responsibility for technical contracting, and aroused the enthusiasm of the broad masses of technicians. Over a period of 2 years, county and commune farm technology departments trained a total of more than 10,000 cadres and technical personnel. They took firmly in hand the promotion of superior varieties suited to local water and soil fertility conditions, breeding, purification and rejuvenation, increasing applications of phosphate and organic fertilizer, and rational use of other chemical fertilizers, gradually solving the problem of imbalance of nitrogen, phosphate, and potash in the soil. The improved techniques for caring for cotton, and intensified forecasting, reporting, prevention, and control of diseases and insect pests, winning fine results in increased output.

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CSO: 4007/140

USE OF HYBRID PLANTS, ANIMALS IN ECONOMIC DIVERSIFICATION EXPLAINED

Shandong DAZHONG RIBAO in Chinese 10 Nov 81 p 3

[Article by Wand Zhengping [3769 2973 1627]: "Do Research on Livestock, Poultry, Fruits and Vegetables to Promote Development of Economic Diversification; Provincial Academy of Agricultural Sciences Actively Uses Existing Specialized Techniques"]

[Text] During the past several years, simultaneous with its vigorous research on grain and cotton crops, the Provincial Academy of Agricultural Sciences has actively used existing specialized technical conditions to steadily open new research avenues for economic diversification, for the spread of pertinent research accomplishment to promote development of rural economic diversification.

The livestock industry is a weak link in Shandong Province's agricultural production, and herbivorous livestock development has been relatively ignored in the past. During the past 2 years, with the readjustment of the entire agricultural structure, the Livestock and Veterinary Medicine Institute of the Provincial Academy of Agricultural Sciences readjusted its research forces, and simultaneous with its attention to research on the raising of hogs, it started research on beef cattle. They bought two head of French beef bulls, Lidazan (0448 1129 6363), which they crossed with Shandong Province's superior variety "West Shandong cattle" with the result that the hybrid cows reached weights of between 272 and 332.5 kilograms in a year, an 8 to 20 percent weight increase over the original "West Shandong cattle." Now more than 50,000 pellets of frozen semen have been disseminated to breed about 6,000 head of cattle. Recently, they also introduced more than 50 superior variety rabbits for the production of meat and fur. They plan to start a rabbit research project next year.

In order to meet the needs of the broad masses of peasants in raising chickens, during the past several years in addition to breeding and promoting more than 1.4 million of the new variety "Jinan speckled chickens," the Livestock Institute of this academy has also introduced superior varieties; one of them termed champion egg layer in the world, "Xingza 228," has already a flock of 9,000 chickens, and in this year alone more than 100,000 chickens were hatched and sent to other places. In the realm of breeding early maturing, hybrid chickens that lay a lot of eggs but consume little feed, hybrid experiments have taken place using the "Xingza 288" and a Jining local superior variety chicken to breed a "100 day chicken," which can lay eggs in a minimum of 98 days. Recently experiments were also conducted in "hybrid improvement of native varieties," in which superior variety roosters and local native varieties of hens crossed naturally, their posterity increasing egg laying by 50 percent and egg weight increasing by about 10 percent.

In order to change the situation in the province's fruit output in which fresh fruit development was rapid but dry fruit development slow, the Fruit Tree Institute of the Provincial Academy of Agricultural Sciences gave attention to dried fruit research even while continuing research on fresh fruit. Beginning with a survey of dried fruit production throughout the province and the distribution of resources, they did breeding and introduced superior varieties, summarized and spread experiences in high yield fruit growing from all places, and worked together with units concerned to make a small chestnut grove that produced yields of 913 jin per mu, walnut yields of 1,284 jin per mu, and a net return of 758 yuan per mu from the intercropping of dates and grain. In addition, the institute also made a survey of famed Shandong fruit tree resources.

In the realm of vegetable production, the Vegetable Institute of the academy also conducted surveys of resources, and did research in the breeding of superior varieties, high yield farming and prevention and control of diseases and insect pests. During this year alone, Chinese cabbage hybrid varieties, "Shandong No 4 and Shandong No 5" were grown on 30,000 mu for fields that were generally from 20 to 50 percent higher than from local varieties. Outstanding accomplishments were also made in research on the prevention and control of virus infections that caused serious degeneration in potatoes and tomato streak.

Sericulture has a long history in Shandong Province, and in order to hasten development, the Sericulture Institute of the Provincial Academy of Agricultural Sciences has conducted research in recent years on the breeding of superior varieties, raising of silkworms for high yields, and prevention and control of mulberry and tussah diseases and insect pests. In particular, promotion of new achievements in the prevention and control of silkworm diseases of "prevention, killing, and dispersing" and the use of imidan to prevent and control sucking moths on oak trees have played major roles in reducing disease and insect pest infestations of mulberry and tussah silkworms, and in increasing mulberry and tussah silkworm output. In addition, as a result of the breeding of superior hybrid varieties, they have produced a new hybrid silkworm, "Dongchun x 757," which produces high yields of good quality silk.

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CSO: 4007/140

SOME METHODS FOR BRINGING SCIENTIFIC FARMING TO GRASSROOTS LEVEL OUTLINED

Shandong DAZHONG RIBAO in Chinese 10 Nov 81 p 1

[Article by Hu Yuliang [5170 3768 0081]: "Proposals Put Forward For Strengthening Rural Science and Technology Work by Rural Science and Technology Work Symposium Convened by Provincial Science Commission and Provincial Science Society"]

[Text] Delegates to the recently held Rural Science and Technology Work Symposium convened by the Provincial Science Commission and the Provincial Science Society jointly put forward six proposals for the strengthening of rural science and technology work as follows:

(1) Further elevation of consciousness on the part of the leaders at all levels to rely on science for increases in agricultural yields, full realization that agriculture is a production sector in which knowledge from diverse academic fields is concentrated, that science and technology occupy an extraordinarily important position in agricultural modernization, and that while further summarizing, perfecting, and consolidating a system of responsibility for agricultural production, vigorous attention should be given to agricultural science and technology.

(2) Need for clarification of the major direction of attack of Shandong Province's agricultural research and the spread of technology. China's traditional agricultural techniques must be linked with modern science and technology, the focus of attention being on grain, cotton, and oil crops to obtain high yields, consistent yields, and superior quality at low cost and low expenditures, giving vigorous attention to introduction of superior varieties, to breeding, rejuvenation and purification, to high yield farming and plant protection techniques, the building up of soil fertility, proper fertilizer application techniques, techniques for economic diversification of agriculture, forestry, animal husbandry, sideline occupations, and fisheries, as well as surveys of agricultural resources, comprehensive control of drought, waterlogging and alkalinity, and study of ecological balance.

(3) Gradual establishment and perfection of a system for the promotion of agricultural technology. On the basis of experience in some places, counties might consider organizing farm technology stations, seed stations, plant protection stations, forestry stations, and livestock veterinary stations, and to the establishment of combined centers for farm techniques. Communes might build and strengthen farm technique promotion stations. Administrative districts can appoint a director of a technology team leaders or farm technique personnel. Existing farm science teams

need to be perfected and consolidated to become bases for experimentation, demonstration, and the breeding of superior varieties. Production teams may organize some scientific and technical households using them to demonstrate in order to spur the masses to scientific farming.

(4) Vigorous development of work for the popularization of science. Various methods should be adopted in an adaptation of general methods to local situations to put science into the hands of the peasants. Some methods include operation of technical night schools for peasants, technical broadcasts, seminars on scientific farming, establishment of commune science popularization societies, the printing of popular science and technology reading materials, and use of country markets to operate consultative services in farm techniques.

(5) There is need for suitable increase in investment for agricultural research and for the spread of technology. In addition, scientific and technical units should go all out in instituting contract systems for the promotion of technology, paying compensation for the transfer of possession of scientific and technical accomplishments, and launch technical services.

(6) There should be further implementation of policies for agricultural technicians, with conscientious testing of agricultural scientists and technicians, with conscientious testing of agricultural scientists and technicians, promotions, recognitions and rewards, and utmost efforts made to improve their working, studying, and living conditions.

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CSO: 4007/140

YUNCHENG PREFECTURE WINTER WHEAT PLANTING ACCOMPLISHED WELL

Taiyuan SHANXI RIBAO in Chinese 21 Oct 81 p 1

[Article: "Sowing of Over 5 Million Mu of Winter Wheat in Yuncheng Prefecture Completed; the Responsibility System Mobilized the Enthusiasm of the Commune Members; in Most Localities, the Wheat Seedlings Have Germinated and Emerged From the Soil; the Seedlings Are Full and Strong"]

[Text] As of the 15th of this month, the planned planting of 5.35 million mu of winter wheat in Yuncheng Prefecture this year had been completed. At present, the wheat seedlings in most places have already emerged from the soil and the seedlings are full and strong.

The major characteristics of the sowing of winter wheat this year in Yuncheng Prefecture were: 1) The responsibility system was implemented, mobilizing the enthusiasm of the commune members. Everywhere, the person contracting the work was seen with the entire family working from dawn to dusk. 2) The sowing period was concentrated and timely. Because attendance and quality of farm work were raised, even though the autumn rain continued, the broad number of commune members seized the clear days, struggled against overcast and rain, and greatly hastened the progress in sowing. According to statistics, the sowing period of the entire prefecture was shortened by 10 days compared to last year; the daily progress of sowing was more than 60,000 mu over last year. 3) The bottom moisture and bottom fertilizers were sufficient. From the middle 10 days of August to the middle 10 days of October this year, the whole region's amount of rainfall averaged over 250 millimeters. The commune members widely gathered farmhouse manure and actively purchased chemical fertilizers; more base manure was applied in wheat fields than last year. In particular, in addition to the carbon chemical fertilizers distributed by the province and the amount locally produced, each county also purchased from places outside the province various types of chemical fertilizers totaling over 27,000 tons, and the amount of fertilizers applied was also increased by 6,500 tons over last year. 4) The crop opening in wheat fields was rational. Each locality scientifically readjusted crop distribution so that the main wheat crop throughout the prefecture covered over 500,000 mu more than last year. In the fields of the late wheat crop, the area of the young crop was larger than last year. 5) The land was fully utilized. The broad number of cadres and commune members undertook large area fine tilling and fine sowing and also utilized scattered land and unclaimed slopeland, trimming the inside and filling the outside, combining the scattered land into whole expanses; they planted widely in the land of the "ten sides"; and they fought to plant on every inch of land.

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CSO: 4007/82

BRIEFS

TIANJIN WHEAT PLANTING--Our city's sowing of autumn wheat has already ended. Because of the effects of drought, the whole city sowed a total of 1.88 million mu of autumn wheat. This figure is less than that of autumn wheat sown in recent years, but in face of a shortage of water sources and severe drought, it was not easy to sow such a large area. According to statistics, 5,073 production teams in the whole city implemented different forms of responsibility system in wheat production. This will be an important factor in increasing the yield of wheat next year. At present, most of the autumn wheat has germinated. Because a part of the wheat fields lost moisture and lacked moisture, some seedlings are missing and some ridges are broken. Therefore, carrying out the work of inspecting the seedlings and replenishing the seedlings well, irrigating well and replenishing moisture, and sealing in frozen water are key measures to preserve full seedlings and to strive for strong seedlings in order to insure the safe wintering of wheat. According to forecasts by the weather departments, this year's winter may be colder than past years, so field management of wheat must be grasped tightly. [Text] [Tianjin TIANJIN RIBAO in Chinese 20 Oct 81 p 1] 9296

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BRIEFS

WATER CONSERVANCY ACHIEVEMENTS--The Zhejiang Provincial Conservancy Conference was held in Hangzhou City from 7 to 12 December. Summing up previous achievements, the conference pointed out that over the past 30 years, the province has built 3,400 large, medium and small-sized reservoirs, built, as well as reinforced, some 5,000 kilometers of levees, and constructed 6,100 small hydro-electric power stations in rural areas. Irrigated acreage in Zhejiang now amounts to 22 million mu, or 83.6 percent of the province's farmland. Touching on new water conservancy plans, the conference called for still greater efforts to improve management of all existing projects, build more small irrigation projects, and create better conditions for future development. [Hangzhou Zhejiang Provincial Service in Mandarin 1040 GMT 14 Dec 81]

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